

REMARKS

Claims 209-216 have been cancelled in view of the restriction requirement. The claim cancellations are made without prejudice to the filing of continuation/divisional applications. Claims 200 and 204 have been amended to clarify that the same species is used in assessing analgesia and sedation. New claims 217-222 have been added. Support for the new claims can be found in the specification, for example, at pages 32-33. No new matter is added by the above amendments.

Claims 186, 187, and 199-208 were rejected under the judicially created doctrine of obviousness-type double patenting over U.S. Patent 6,723,730. Applicants respectfully note that the Office has mischaracterized the claims as relating to methods of use containing diaryl piperazines. The Office's characterization is narrower than what is actually claimed: the present claims are not limited to diaryl piperazines.

Responsive to the obviousness-type double patenting rejection, Applicants enclose herewith a Terminal Disclaimer. Withdrawal of the rejection is respectfully requested.

The remaining rejections are addressed below.

Rejection under 35 U.S.C. § 112, First Paragraph

Claims 186, 187 and 199-208 stand rejected as not being enabled. Relying on the factors set forth in In re Wands, the Office contents that undue experimentation would be required to

practice the invention as it is claimed in its current scope. Applicants respectfully disagree.

Initially, Applicants submit that the Office's analysis based on In re Wands is incomplete in at least two ways. Firstly, the Office has not considered the second In re Wands factor listed at page 4 of the Office Action: the amount of direction or guidance provided. Consideration of this factor reveals that the specification provides adequate direction and guidance to enable practice of the invention. For instance, a capsaicin receptor binding assay is detailed in Example 10. Example 11 details an assay for capsaicin receptor antagonism. These assays can be used in practicing the claimed invention.

Secondly, the Office has not considered the fifth In re Wands factor as listed in the Office Action, relating to the state of the art. It is respectfully submitted that the state of the art is such that no undue experimentation would be required to practice the assays described in the application. No undue experimentation is required, therefore, to practice the claimed invention.

As noted, the application clearly teaches methods for screening compounds that are VR1 antagonists. The use of this screen to identify other antagonists would require only routine experimentation. This is so because rational screening of compound libraries is routine in the art. See for example,

Burger's Medicinal Chemistry and Drug Discovery, 1995, 5th Ed.,

Vol. 1, at page 387 (copy attached), stating:

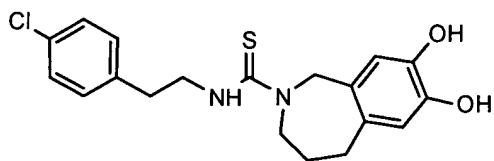
...the process of random screening has continued in the form of targeted screening. This approach minimizes the randomness of the pre 1960s screening approach discussed above by rationally choosing molecular targets thought to be involved in given disease states and screening compound sources for novel leads using the technique of radioligand binding.

See also the discussion of High Throughput Screening at page 390 (also enclosed), supporting Applicants' position that identifying capsaicin receptor antagonists would not require undue experimentation in view of the assays taught by applicants and the level of skill in the art. Applicants submit, therefore, that no undue experimentation is required to practice the invention as claimed. Withdrawal of the § 112, first paragraph rejection, of claims 186, 187 and 199-208 is respectfully requested.

Rejection under 35 U.S.C. § 102

Claims 186, 199, 201-203, and 205-207 stand rejected under § 102(b) as being anticipated by Kwak et al., Neuroscience 86(2): 619-626 (1998) ("Kwak"). Applicants respectfully disagree with the rejection. Kwak does not teach every element of the claimed invention. For instance, the reference does not disclose methods utilizing capsaicin-receptor antagonists that are not capsaicin analogs.

Kwak relates to capsazepine, a capsaicin receptor antagonist, and its effect on hyperalgesic responses. Kwak, abstract. Capsazepine has the following chemical structure:



See attached chemical supplier page. Capsazepine is a capsaicin analog; it contains a phenyl ring with two oxygen atoms bound to two adjacent ring carbons. See definition of capsaicin analogue at specification page 2, second paragraph; see also Kwak, abstract, and page 620, left column, first full paragraph stating that capsazepine is a capsaicin-like substance.

Capsaicin analogues are explicitly excluded from rejected claims 186, 199, 201-203, and 205-207. The reference does not disclose methods utilizing capsaicin-receptor antagonists that are not capsaicin analogs. Thus the reference does not teach every element of the claimed invention. As a result, the claims are not anticipated by the reference.

Withdrawal of the § 102 rejection of claims 186, 199, 201-203, and 205-207 is requested.

Rejection under 35 U.S.C. § 103

Claims 200 and 204 stand rejected as being unpatentable over Kwak. The Office contends that Kwak and the instant invention differ in that the references does not teach

administration of the capsaicin receptor antagonist at five times the minimum dose needed to provide analgesia in an adult mammal. The Office concludes that this difference would be obvious. Applicants respectfully disagree with the obviousness rejection.

In its obviousness analysis, the Office does not appear to have considered the claimed requirement that the receptor antagonist not be a capsaicin analogue. As noted above, Kwak only describes a capsaicin analog; Kwak does not describe or suggest capsaicin receptor antagonists that are not capsaicin analogues. There is nothing in the reference that would lead a person of ordinary skill in the art to consider non-capsaicin analogues as capsaicin receptor antagonists. Claims 200 and 204 are therefore not rendered obvious by the reference. Withdrawal of the § 103 rejection is requested.

New Claims 217-222 are Allowable

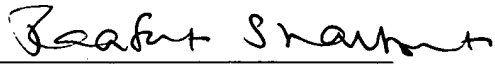
New claims 217-225 are allowable. The new claims relate to a method for treating neuropathic pain using a capsaicin receptor antagonist. The cited art does not teach or suggest that a VR1 antagonist can be used to treat neuropathic pain. The new claims are therefore believed to be free of the prior art. In addition, for the same reasons discussed above in response to the § 112 rejection, the new claims are fully enabled by the specification.

Allowance of all the pending claims and passage of the case to issue are respectfully solicited. Should the Examiner believe that a discussion of this matter would be helpful, he is invited to telephone the undersigned at (312) 913-0001.

Respectfully submitted,
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